US Army Corps of Engineers®

"With every new undertaking, we must insure that we leave the environment in the same or better shape than it was before we began. Vancouver*

The Black-bellied Whistling Ducks are propagating and increasing their numbers thanks to habitat restoration.

Impacts by Humans

- An estimated one-third of the native U.S. flora and fauna is vulnerable, imperiled or critically imperiled.
- At least 30 ecosystem types within the U.S. are critically endangered, having lost more than 98% of their extent since European settlement.
- Currently 511 animal species and 736 plant species are Federally listed as threatened or endangered in the U.S.
- Major causes of habitat loss and degradation include: agriculture; commercial development; grazing; pollutants; infrastructure development; logging and mining; oil, gas, and geothermal exploration; and development.
- Approximately 64% of 694,000 miles of surveyed rivers fully support habitat and recreation. The major problems of imperiled rivers are sedimentation and excess nutrients.
- States, tribes, territories and interstate commissions report that, in 1998, about 40% of U.S. streams, lakes and estuaries that were assessed were not clean enough to support uses such as fishing and swimming.

Biodiversity

- Identified threats to biodiversity are habitat destruction, non-native species intrusion, over-exploitation, disease, and pollution.
- Estimates are that between 70-90% of riparian habitats have been lost or altered, adversely affecting the viability of plant and animal species.

Importance of Wetlands

- Each year, wetlands provide an estimated $14.8 billion in ecosystem services such as regulating floods and filtering waste.
- Over 53% of wetlands in the contiguous U.S. have been lost due to human actions.
- About 35% of all Federally listed rare and endangered animal species either live in or depend upon wetlands.

** Topics in this paper were identified at 16 Listening Sessions between June and November 2000. The purposes of the Listening Sessions were to start a dialogue and to provide citizens an opportunity to tell us what they believed the Federal role should be in addressing water resources.*

Comments from the Listening Sessions

"The most important water resources challenge facing the Nation is the rural environmental infrastructure in Alaska." *Anchorage Session*

"Ensure effective mitigation for wetlands lost due to Federal projects." *Dallas Session*

"Maintain and restore wetlands that provide important habitat for the large number of wildlife species that depend on them." *Dallas Session*

"Broaden guidelines to give more value to social, economic, and/or environmental solutions" *Sacramento Session*

"Regional sediment management and coordination with Federal agencies." *Sacramento Session*

"Restoration of river systems impacted by mining activity." *Anchorage Session*

"More attention needs to be focused on environmental resource base rather than economic development / cultural issues." *Anchorage Session*

"Monitor and reevaluate projects using good science." *Omaha Session*

"Study existing facilities and rehabilitate/redesign to mitigate for impacts or restore natural processes." *Vancouver Session*

"Need to prioritize river / estuaries / streams restoration." *Vancouver Session*

"Improve maintenance of stream conveyance systems through ecologically sound methods." *Chicago Session*

"Coordinated national policy on water issues that give equal emphasis to environmental values." *Louisville Session*

People said that the Federal government should assess and monitor environmental health.

Americans Say the Federal Government Should:

- Revise Federal planning policy to make the environment an equal goal with economic benefits in project selection.
- Create cost-sharing incentives to encourage environmental benefits.
- Create consistency among agencies in environmental regulations, especially regarding wetlands.
- Assure that unavoidable environmental impacts are fully mitigated.
- Assess and monitor: environmental health, test mitigation techniques, and develop environmentally friendly technologies.
- Educate the public on environmental issues.

Ecosystem-Friendly Development Only

Many listening session participants expressed concern that ecosystems and the environment are not being adequately protected and restored, particularly wetlands. They noted that human activities, such as dam construction, dredging, water level manipulation, and channelization, destroy ecosystem functions. These ecosystem functions provide benefits to humans such as water filtration, floodwater storage, and the recreational and economic harvest benefits of wildlife habitat. Participants pointed out that habitat loss causes wildlife species to become threatened or endangered. The impacts of global warming on wildlife (and human) habitat and the effects of invasive exotic species were also of concern to participants.

Participants believed that the cumulative and indirect impacts of development on the ecosystem are not sufficiently considered. Also, the cost-benefit analysis applied in project decision making is biased against projects with higher environmental benefits because these benefits are hard to quantify. Some participants pointed out that mitigation requirements of development projects are not properly enforced, and that a backlog of incomplete mitigation projects exists. The focus on quantity rather than quality of mitigated habitat was another issue raised by participants. An overarching reason for the continued destruction, some participants felt, is that mitigation of wetland loss is being allowed when prevention of the loss would be preferable.

Participants identified many ways in which they felt ecosystem health could be better managed. Several participants noted a lack of environmental data to make informed decisions about mitigation and development opportunities–specifically data on existing environmental conditions, the effects of development, and the effectiveness of restoration activities. Existing information on the environment and ecosystem processes should be used to educate the public, some participants felt, so there would be more support for environmental protection measures. Coordinating agency policies and viewing environmental problems from a broad geographical perspective was important to several participants, who believed disjointed environmental policies from multiple agencies creates inefficiencies and hinders restoration and mitigation work. A few participants noted that traditional planning techniques are not sustainable, and that planners need flexibility to think outside the box to develop ways to link environmental restoration to construction projects. Many participants cited a need for cooperation and stakeholder involvement in environmental management issues. This need was highlighted by the fact that several participants expressed the opinion that environmental regulations are the result of environmental fringe group lobbying and often serve only to hinder needed development.

Regional Concerns:

In Vancouver, participants discussed tradeoffs between endangered salmon and economic needs of the Columbia River region. Water quality in National Wildlife Refuges was a concern for participants in Anchorage. Participants in Omaha noted the need for more research to support mitigation and restoration efforts, and were concerned about the effects of exotic species such as the zebra mussel.

Participants at the Louisville, St. Louis, Woburn, and New Brunswick sessions discussed a range of ecosystem and environmental issues. Topics included citizens' utilitarian perception of rivers, appropriate ways to mitigate wetlands, habitat impacts of low instream water flows, and the urgent need to preserve remaining wildlife habitat in urban areas.